<u>ABSTRACT</u>

There is disclosed a novel flat heating surface type gas stove which is capable of heating a heating substance across a heat resistance glass at practically applicable heating efficiency, overcoming any inconvenience resulting from the exposure of flame and facilitating the cleaning of the gas stove. This gas stove 10 comprises a heat resistance glass top plate 12 which is disposed over a burner 15, wherein a gas-permeable porous body 40 is disposed below said top plate 12, and a space between said top plate 12 and a surface of said gas-permeable porous body 40 is assigned to a combustion space S. Combustion gas generated is designed to be discharged through said gas-permeable porous body 40. As high-temperature combustion gas passes through said gas-permeable porous body 40, radiant heat B is generated from the surface of said gas-permeable porous body 40. Since the heating substance 4 is heated by both of heat conduction and radiation, high heating efficiency can be achieved.